DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028414
Date Inspected: 12-Sep-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1930
Location: Job site

CWI Name:	Salvador Merino			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG

Summary of Items Observed:

Quality Assurance Inspector (QAI) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

This QA randomly observed ABF/JV QC inspector John Pagliero performing Magnetic Particle Testing (MT) of 13E Deck drop-in longitudinal stiffener splice an K-plate web to Longitudinal stiffener connections at panel point 120.6. The locations tested were in way of repairs performed and completed 48 hours prior. The following locations were tested;

13E-PP120.6-LS2
No rejectable indications observed by QC at the time of inspection.
13E-EK=SK1
No rejectable indications observed by QC at the time of inspection.

Ultrasonic Testing OBG

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) Corner drop-in and stiffener/flange splices for lifts 12E, 13E and 13W. The weld was previously tested and accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

Lift 12E Corner drop-in side plate splice (Weld No. 12E-PP111.1-C1)
The QAI performed a verification in way of repairs and the surrounding area at Y=500 and Y=1990. No rejectable

indications were observed at the time of inspection. Further testing of this weld is required in way of Y=1150 previously rejected by the QAI on 09-10-2012.

Lift 13E Deck drop-in longitudinal stiffener splice (Weld No. 13E-PP120.6-LS2)
The QAI performed a minimum of 10% verification of this weld. No rejectable indications were observed at the time of inspection.

Lift 13W Deck drop-in flange splice (Weld No. 13W-PP123-W2.8-BF3)
The QAI performed a minimum of 10% verification of this weld. No rejectable indications were observed at the time of inspection however during the QA visual inspection of this weld it was observed that the flange connection was lacking the required 8mm reinforcing fillet weld. The QAI contacted the ABF QC inspector Scott Kortum and notified him of the missing weld. Further testing is required at this location after the addition of the required fillet weld.

The QAI noted and periodically observed the ABF qualified welder Wai Kit Lai performing fit up of the wing plate (flange) to the deck longitudinal stiffener LS3 in way of the field splice between panel points 117 and 117.5. The ABF QC inspector Salvador Merino was observed later in the shift visually inspecting the fit-up at this location. During the QAI's observations at this location it was noted that the root opening was less than 1mm and complied with the approved shop drawing. The weld is a partial joint penetration Tee joint. The ABF qualified welder Wai Kit Lai was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1162-4. The weld and surrounding area was brought to temperature by the use of a gas torch and maintained throughout the welding process.

Magnetic Particle Testing (OBG 13E/2W)
This QA Inspector performed a minimum of 15% verification Magnetic Particle Testing (MT) of the lift 13E Longitudinal Deck Stiffener splice and K-plate web to Longitudinal stiffener connection. This QA Inspector generated a TL-6028 MT report on this date. The results of the inspection are as follows;

Lift 13E Deck drop-in longitudinal stiffener splice (Weld No. 13E-PP120.6-LS2) The QAI performed a minimum of 15% verification of this weld from face A/B. No rejectable indications were observed at the time of inspection.

Lift 13E K-Plate web to longitudinal stiffener splice (Weld No. 13E-EK-SK1) The QAI performed a minimum of 15% verification of this weld from face A/B. No rejectable indications were observed at the time of inspection.

The QAI noted and periodically observed ABF welder Jose Torres #6235 performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1. 5-1162-4. The weld is a partial joint penetration Tee joint, connecting the rib stiffener flange (Wing Plate) to the longitudinal deck stiffener LS1 .The weld and surrounding area was brought to temperature by the use of a gas torch and maintained throughout the welding process. The ABF QC inspector Salvador Merino was observed monitoring the welding parameters at the beginning of the shift. The production welding at this location was completed prior to the end of the QAI's shift.

QA Recordable Verification

The QAI was provided by the QA Task Leader, a list of recordable indications transferred from the QC final ultrasonic Testing reports to verify. The transverse deck splice at panel point 121.6 was ultrasonically examined in way of the Y locations that recordable indications were noted on the QC test reports. The QAI's findings on the verification of recordable indications are as follows.

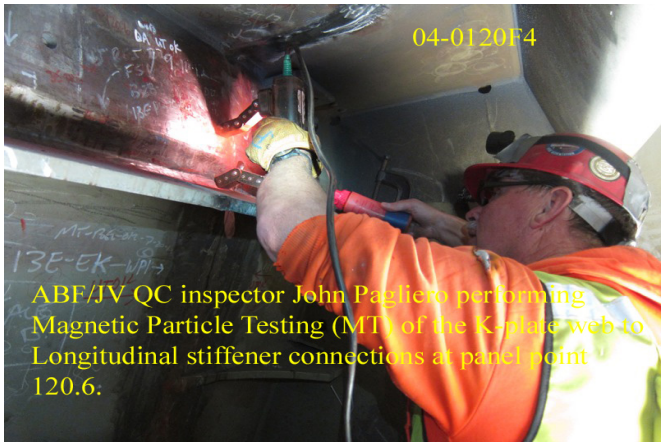
Weld 13E-PP121.6
Y=1740, AWS db rating=+13 was observed and recordable indication confirmed
Y=1800, AWS db rating=+9 recordable indication was found to be rejectable
Y=1885, AWS db rating=+9 recordable indication was found to be rejectable
Y=1945, AWS db rating=+17 was observed and recordable indication confirmed

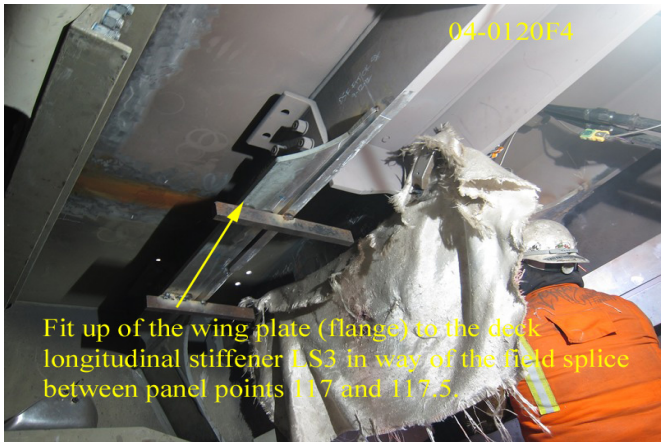
The QAI spent a portion of this shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13E-14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above





Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Patterson,Rodney	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer